

City of Raleigh

Lower Longview Lake Partial Dredging Project Informational Public Meeting

September 22, 2016



Project Team

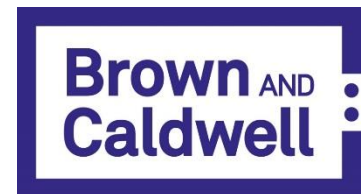
City of Raleigh

- Blair Hinkle, PE – Stormwater Program Manager
- Veronica High, PE – Senior Engineer
- Gilles Bellot, PE – Project Manager
- Susan Mullins, Real Estate Specialist
- Sarah Beth Gentry, Real Estate Specialist



Brown and Caldwell

- Katie Dorety – Project Manager
- Brenan Buckley, PE – Project Director



Meeting Overview

- Present Proposed Partial Dredging Plan
- Obtain All Remaining Deeds from Residents for Partial Dredging Project
- Brief Overview of Bank Stabilization Project
- Q&A Session to Discuss Project and Construction-Related Questions and Concerns



Where We Are...

- City Council Allotted **\$300,000** to spend on removal and disposal of lake sediment
 - \$210,000 maximum City participation
 - \$90,000 by lake partial-owners via assessment process
- Goal: to provide the best benefit for the available funds
- 100% owner participation (via signed deeds) greenlights the project
- If not 100% participation, staff will report back to Council at Tuesday, Oct 18 meeting

Key Considerations for Partial Dredging

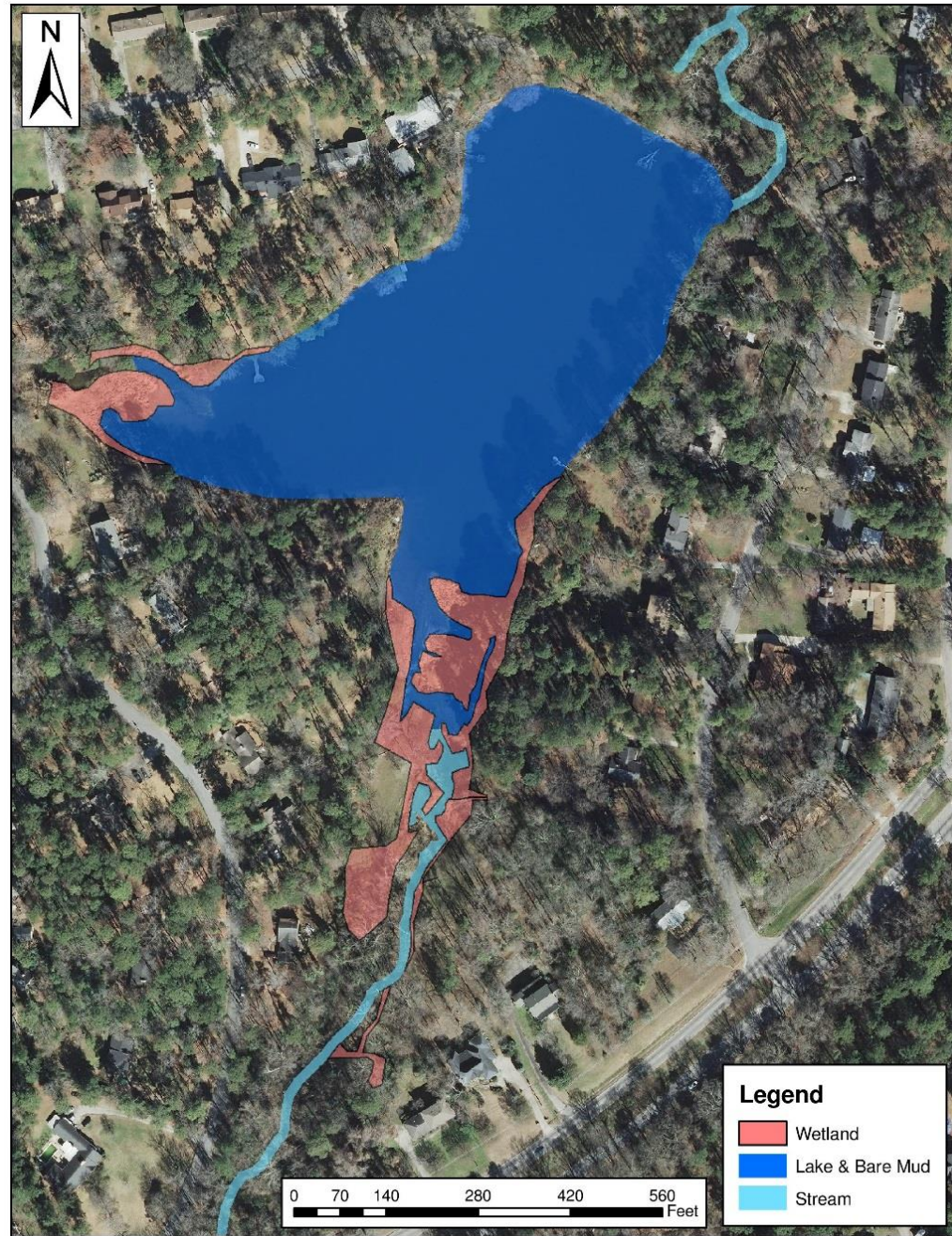
- The wetlands are off-limits
- Timing: partial dredging will take place during the dam rehabilitation project (spring – summer 2017)
- Volume Removed: variable, heavily dependent on disposal options and bid prices
- Focus removal efforts on headwaters for biggest impact on reducing rate of lake area lost over time

The Presence of Wetlands Limits Our Options

- Wetlands are off-limits
- Temporary fencing to protect wetlands during sediment removal
- Focus dredging efforts to minimize future wetland formation

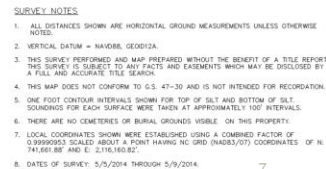
Preliminary Wetland Delineation June 2016

Brown and Caldwell



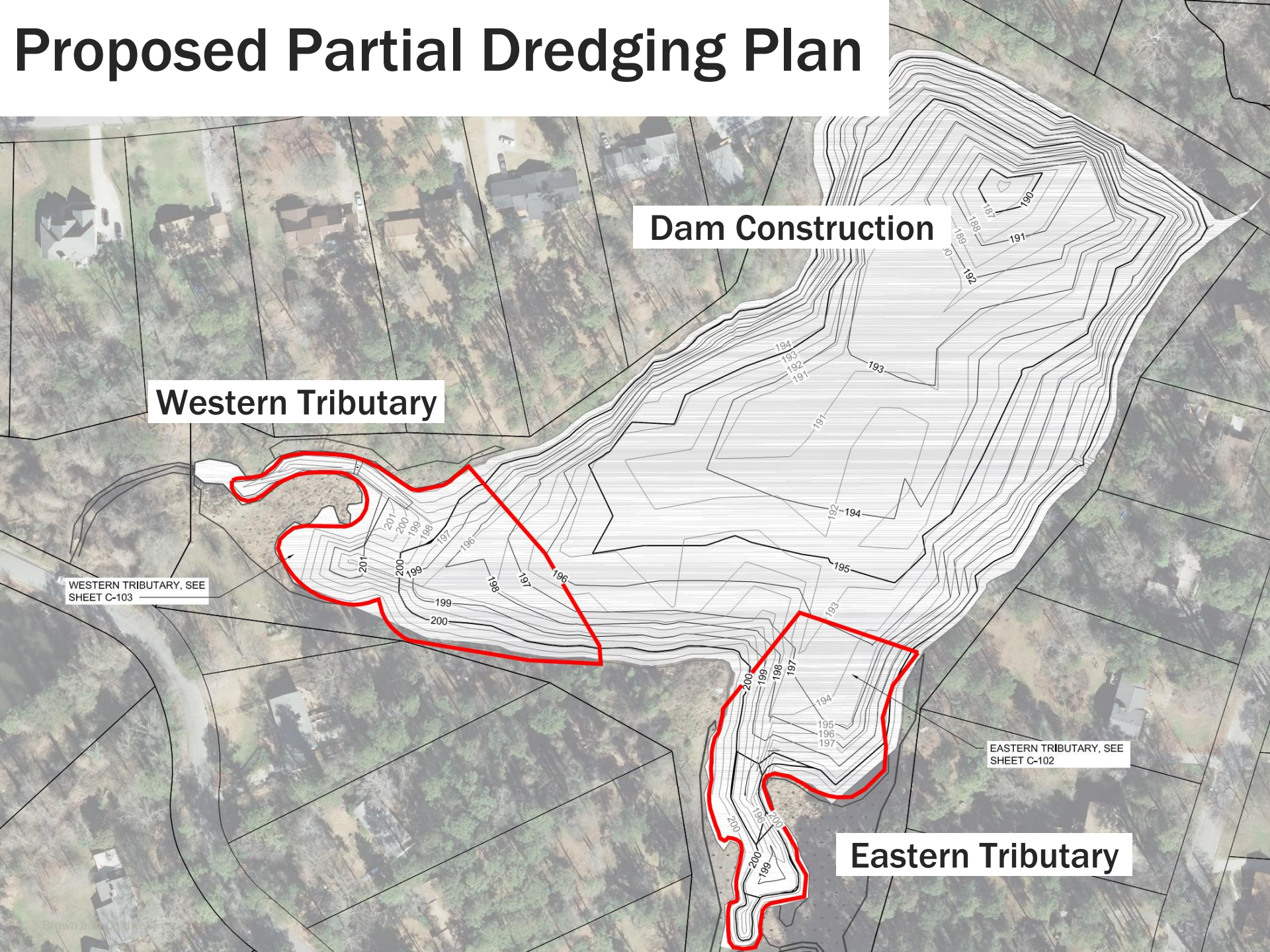
* NOTES:

1. ELEVATION REPRESENTS THE SURVEYED DIFFERENCE IN DEPTH OF SEDIMENT IN FEET.
2. DIFFERENCE IN ELEVATION IS MEASURED FROM THE TOP OF ACCUMULATED SEDIMENT DOWN TO THE HARD BOTTOM SURFACE.



Brown and Caldwell

Proposed Partial Dredging Plan



Dam Construction

Western Tributary

WESTERN TRIBUTARY, SEE
SHEET C-103

EASTERN TRIBUTARY, SEE
SHEET C-102

Eastern Tributary

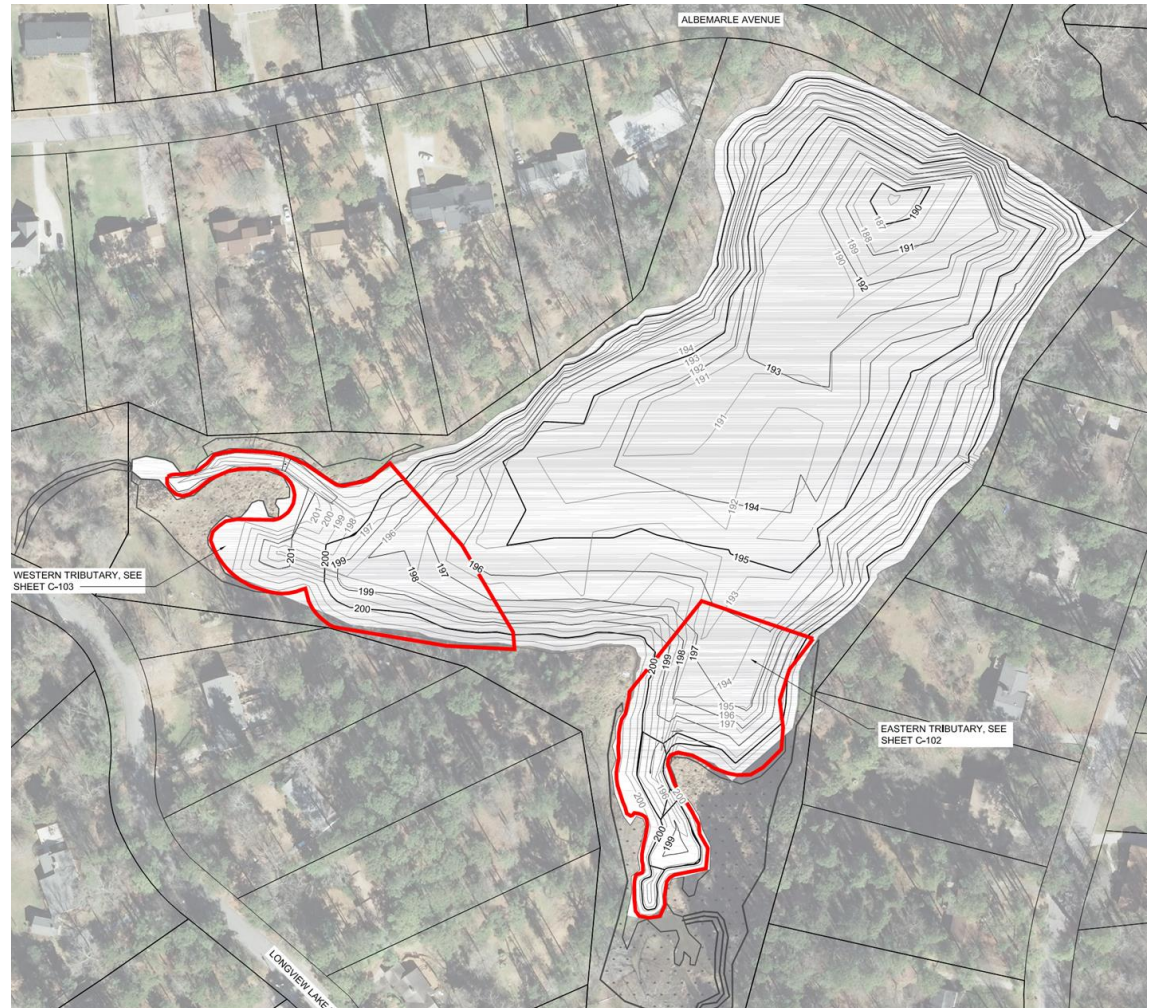
Proposed Partial Dredging Plan – Key Considerations

Depends on:

- Disposal Costs: Availability of City-owned lands for disposal
- Bid prices for work

Details:

- Partial dredging of built-up sediments
- Concentrated at headwater areas (southern portion of the lake)
- Perimeter dredging not recommended due to increased construction costs and impacts



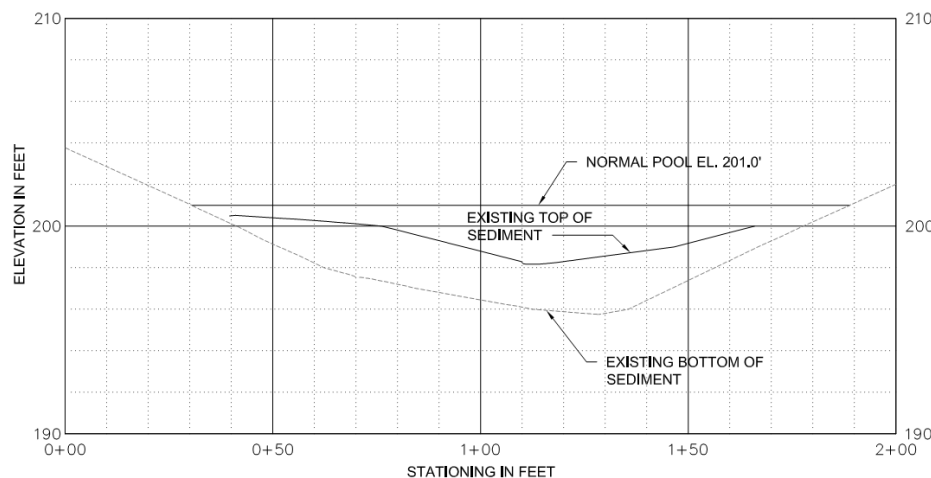
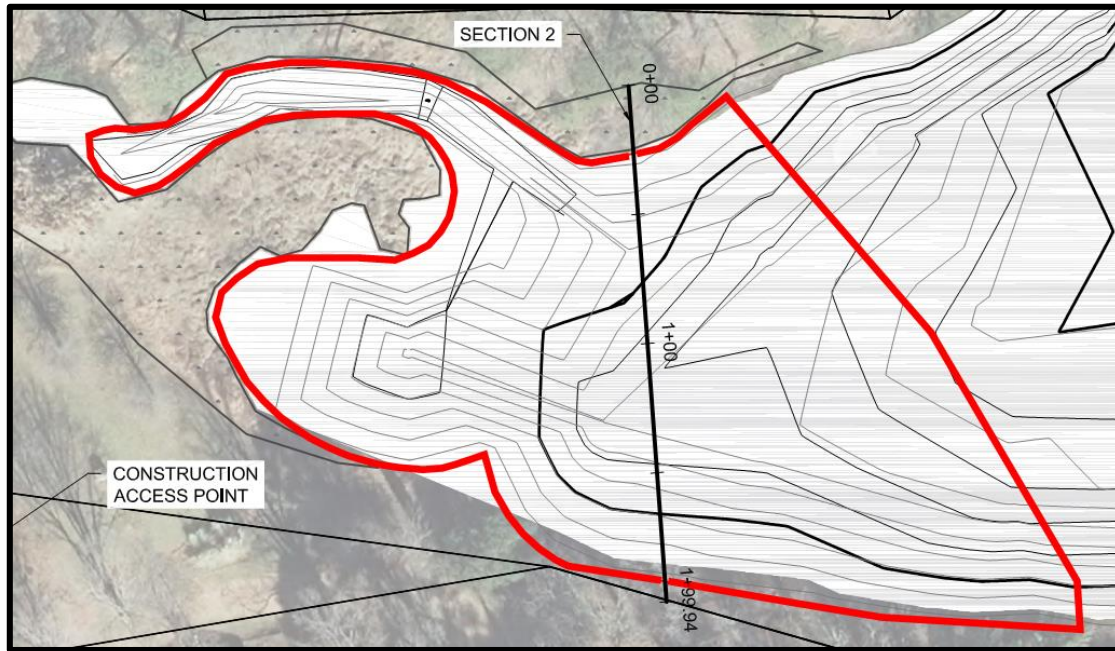
Western Tributary – Sediment Removal



Western Tributary – Sediment Removal



Western Tributary – Sediment Removal



- Target Area: 0.96 acres
- Target Volume: 1,730 cubic yards
- Current Avg. Depth: 1.7 feet
- Target Avg. Depth: 3.6 feet
- Target Max. Depth: 5 feet

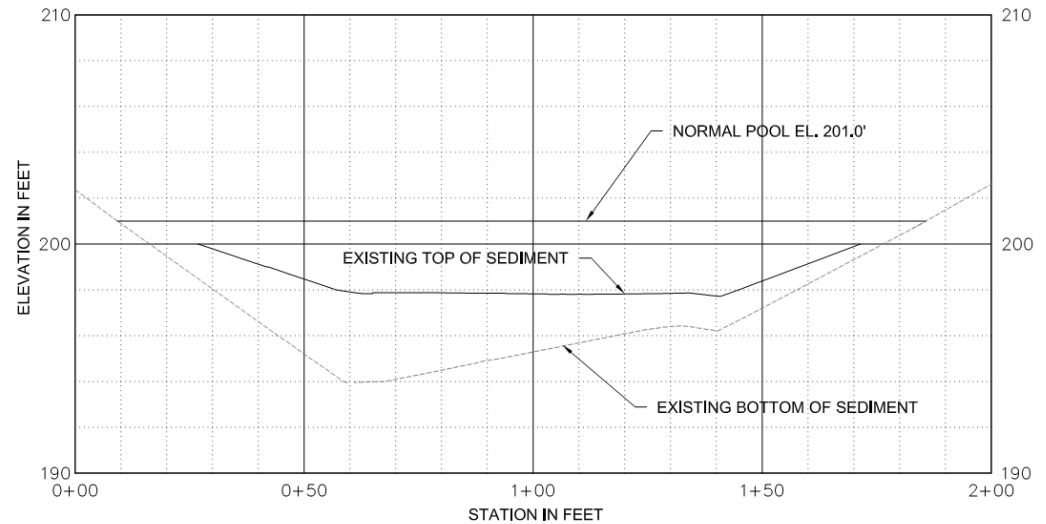
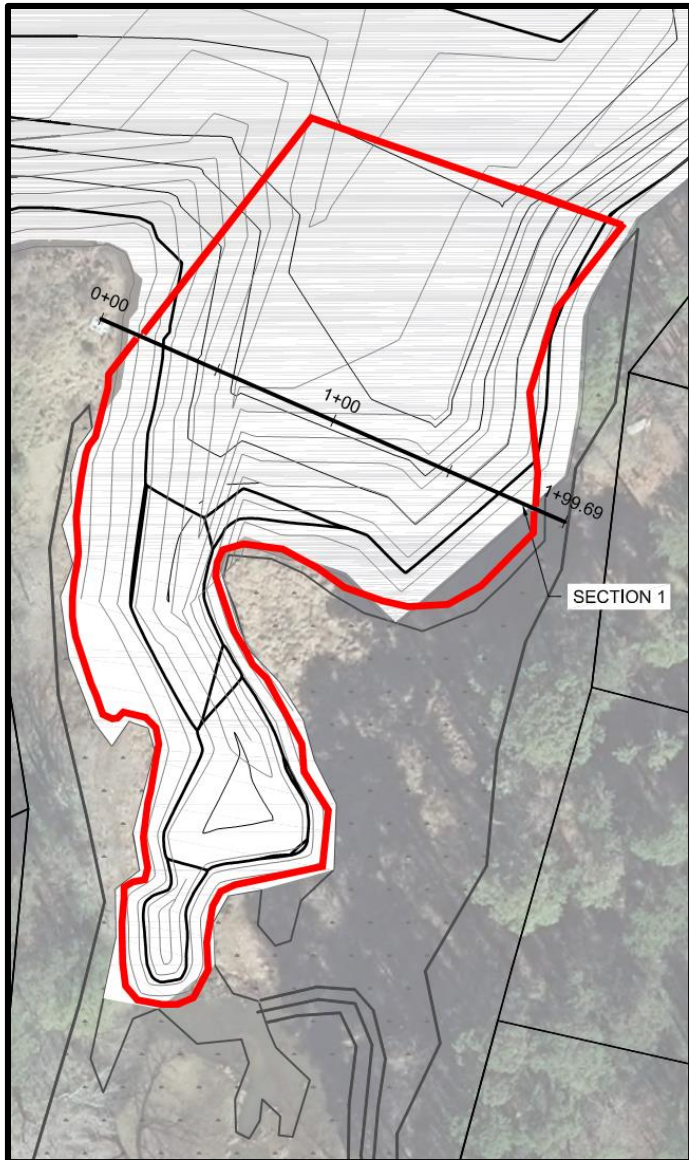
Eastern Tributary – Sediment Removal



Eastern Tributary – Sediment Removal



Eastern Tributary – Sediment Removal



SECTION 1

- Target Area: 0.82 acres
- Target Volume: 2,100 cubic yards
- Current Avg. Depth: 2.6 feet
- Target Avg. Depth: 5.0 feet
- Target Max. Depth: 7.0 feet

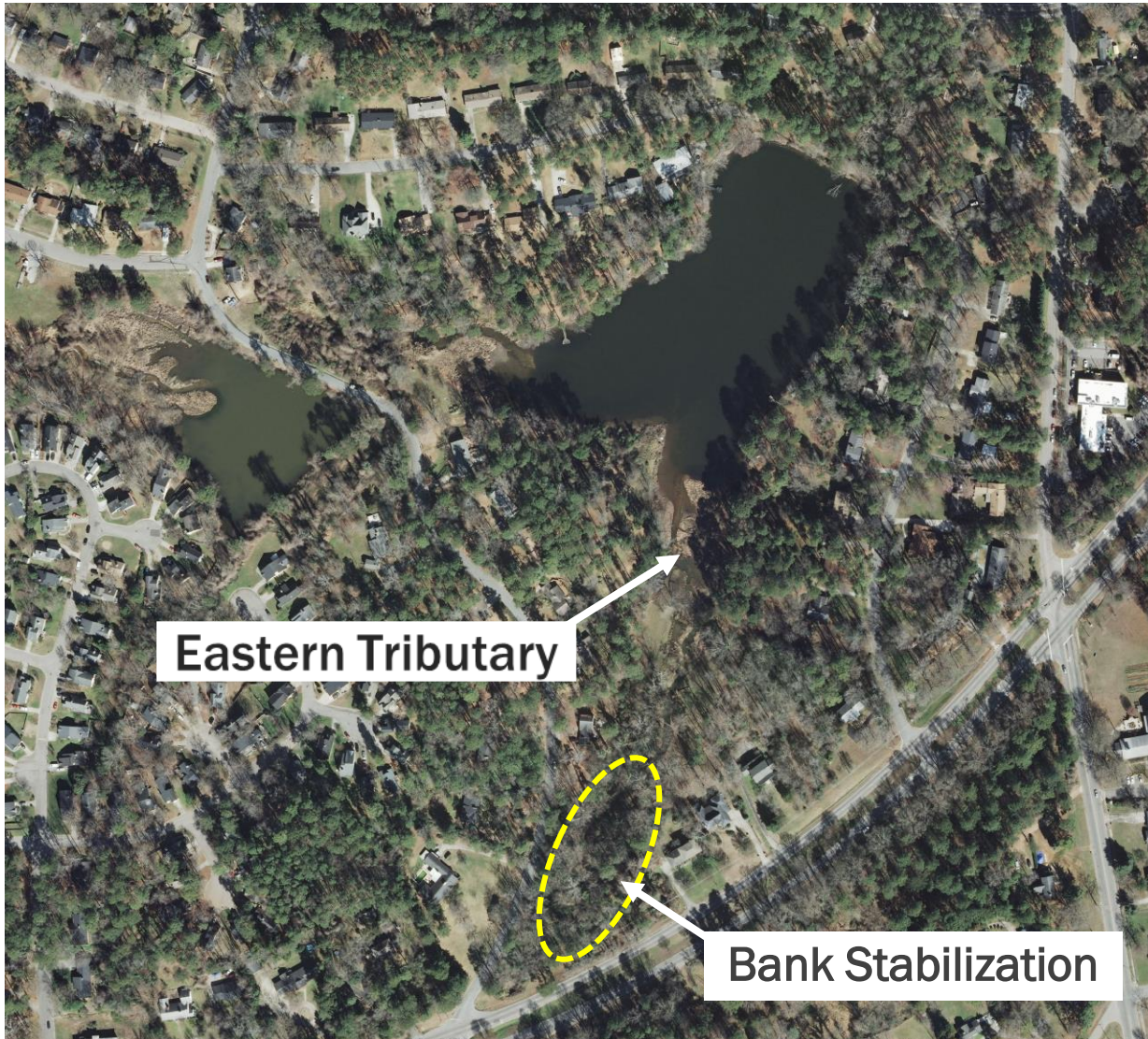
Decisions

- City will make best decision based on engineering criteria:
 - maximize volume removed for available funding
 - limit loss of lake footprint
- Due to time constraints and field decisions that may have to be made quickly, the City will likely not be able to provide another opportunity for any additional feedback after tonight's meeting
- Several factors could impact the final plan
 - Bid costs
 - Permit requirements
 - Field conditions

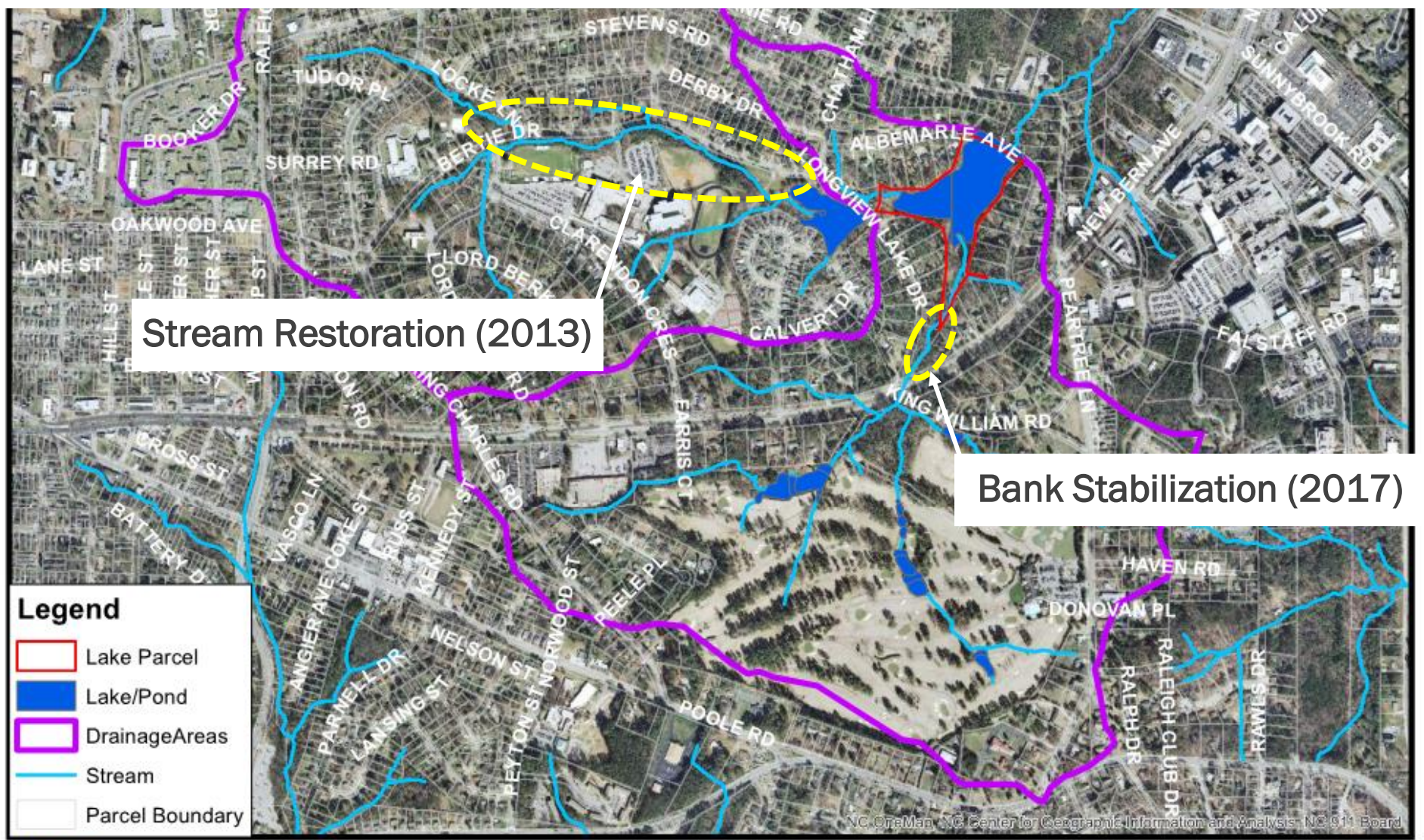
Deeds Required for Partial Dredging

- Important that everyone signs their deed as soon as possible
- To sign deed tonight: see table set up with real estate representative/notary
- Without all or large majority of deeds, partial dredging may not be approved by City Council

Bank Stabilization Project on City Property (Eastern Tributary)



Bank Stabilization Project Joins Other Water Quality Improvements in Watershed



Bank Stabilization Project on City Property (Eastern Tributary)



Bank Stabilization Project on City Property (Eastern Tributary)

- **Contact:**
 - City of Raleigh: Todd Rall, Project Manager (919) 996-4006
- **Status:** Currently in Data Collection and Preliminary Design
- **Anticipated Schedule:** Construction Spring 2017
- **Scope of Work:** point repairs on City-owned land to stabilize banks and reduce sediment loading to lake
- **Connection to dredging project:** the City is doing its part to prevent sediment erosion leading into the lake

What to Expect During Construction

- Lake will be drained for the entirety of the dam rehabilitation project – most of 2017
- Dredging activities currently projected for Spring - Summer 2017
- Construction access concentrated at one point for dredging project
- Dredging only occurring in the southern portion of the lake
- No mosquito treatment: will work to eliminate standing pools of water in lake bottom where feasible



Questions and Contact Information

City of Raleigh Contact Information:

Blair Hinkle, Stormwater Program Manager

blair.hinkle@raleighnc.gov

(919) 996-3940

Veronica High, Senior Project Engineer

veronica.high@raleighnc.gov

(919) 996-4018

Gilles Bellot, Project Manager

gilles.bellot@raleighnc.gov

(919) 996-4001